

AMENDMENTS TO THE CLAIMS:

Kindly amend claims 1, 11, 25, 26, and 30, as shown below.

This listing of claims will replace all prior versions and listings of claims in the Application:

Claim 1 (currently amended): A thermocouple junction box comprising:
a metallic cup electrically connected to a thermocouple sensing junction; and
a stud disposed, at least in part, within said cup, said stud being electrically isolated from said cup.

Claim 2 (original): A thermocouple junction box as claimed in claim 1, wherein said cup is electrically connected to a thermocouple sensing junction.

Claim 3 (original): A thermocouple junction box as claimed in claim 1, wherein said stud is threaded.

Claim 4 (original): A thermocouple junction box as claimed in claim 1, wherein said cup comprises type K metal.

Claim 5 (original): A thermocouple junction box as claimed in claim 1, wherein said stud comprises stainless steel.

Claim 6 (original): A thermocouple junction box as claimed in claim 1, further comprising a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud.

Claim 7 (original): A thermocouple junction box as claimed in claim 6, wherein said conductive element is a washer or lug.

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

Claim 8 (original): A thermocouple junction box as claimed in claim 6, wherein said conductive element comprises a non-conductive portion, said non-conductive portion being in contact with said stud when said conductive element is disposed on said stud.

Claim 9 (original): A thermocouple junction box as claimed in claim 6, further comprising an insulating element independently movably disposed along said stud with respect to said conductive element, said insulating element electrically isolating said conductive element from said stud.

Claim 10 (original): A thermocouple junction box as claimed in claim 9, wherein said insulating element has an annular shape.

Claim 11 (currently amended): A thermocouple junction box comprising:
a metallic contact element electrically connected to a thermocouple sensing junction;
and

a stud mechanically coupled to said contact element by means of an insulating material and electrically isolated from said contact element by means of said insulating material.

Claim 12 (original): A thermocouple junction box as claimed in claim 11, wherein said stud is connected to said contact element by means of friction or interference fit with said insulating material or by means of oxide bonding.

Claim 13 (original): A thermocouple junction box as claimed in claim 11, wherein said stud is connected to said contact element by means of brazing or welding to said insulating material.

Claim 14 (original): A thermocouple junction box as claimed in claim 11, wherein said insulating material has an annular shape.

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130 W. CUSHING STREET
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FAX. 520.882.7643

175 CANAL STREET
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FAX. 603.668.8567

Claim 15 (original): A thermocouple junction box as claimed in claim 11, wherein said contact element comprises type K metal.

Claim 16 (original): A thermocouple junction box as claimed in claim 11, wherein said stud comprises stainless steel.

Claim 17 (original): A thermocouple junction box as claimed in claim 11, wherein said contact element is cup-shaped.

Claim 18 (original): A thermocouple junction box as claimed in claim 11, wherein said contact element is connected to a thermocouple sensing junction.

Claim 19 (original): A thermocouple junction box as claimed in claim 11, wherein said stud is threaded.

Claim 20 (original): A thermocouple junction box as claimed in claim 11, further comprising a conductive element electrically connected to a thermocouple cable and movably disposed along the length of said stud.

Claim 21 (original): A thermocouple junction box as claimed in claim 20, wherein said conductive element is a washer or lug.

Claim 22 (original): A thermocouple junction box as claimed in claim 20, wherein said conductive element comprises a non-conductive portion, said non-conductive portion being in contact with said stud when said conductive element is disposed on said stud.

Claim 23 (original): A thermocouple junction box as claimed in claim 20, further comprising an insulating element independently movably disposed along said stud with respect to said conductive element, said insulating element electrically isolating said conductive element from said stud.

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130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
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FAX. 603.668.8567

Claim 24 (original): A thermocouple junction box as claimed in claim 23, wherein said insulating element has an annular shape.

Claim 25 (currently amended): A thermocouple assembly comprising:
a thermocouple sensing junction;
a metallic contact element electrically connected to said thermocouple sensing junction;
a stud adapted to receive thereon a conductive element electrically connected to a thermocouple cable, said stud being electrically isolated from and mechanically coupled to said contact element;
said thermocouple cable being coupled to said thermocouple sensing junction via an interface between said conductive element and said contact element when said conductive element is disposed about said stud and seated on said contact element.

Claim 26 (currently amended): A method of reducing thermocouple error providing an electrical connection to a thermocouple sensing junction, said method comprising:
in a thermocouple junction box having a stud fixedly disposed in relation to a metallic contact element electrically connected to a thermocouple sensing junction, electrically isolating said stud from said contact element.

Claim 27 (original): A method as claimed in claim 26, wherein said stud and said contact element are formed from different metals.

Claim 28 (original): A method as claimed in claim 26, wherein said contact element is cup-shaped.

Claim 29 (original): A method as claimed in claim 28, wherein said stud is disposed, at least in part, in said cup-shaped contact element.

Claim 30 (currently amended): A thermocouple assembly comprising:

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

a thermocouple sensing junction; and
a metallic connecting portion for positioning a thermocouple cable such that it
electrically connects to said thermocouple sensing junction;
wherein said thermocouple sensing junction and said thermocouple cable are
electrically isolated from said metallic connecting portion.

HAYES SOLOWAY P.C.
130 W. CUSHING STREET
TUCSON, AZ 85701
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567